



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/544,116

10/04/2005

Luc Moens

22.32-WO-US

8632

8015

7590

01/04/2010

CYTEC INDUSTRIES INC.
1937 WEST MAIN STREET
P.O. BOX 60
STAMFORD, CT 06904-0060

EXAMINER

LISTVOYB, GREGORY

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

01/04/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/544,116	Applicant(s) MOENS ET AL.	
	Examiner GREGORY LISTVOYB	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 29-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 29-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 29-41 rejected under 35 U.S.C. 102(b) as being anticipated by Moens et al (WO 98/18862, cited with equivalent US patent 6635721) (cited in the previous Office Action).

Regarding claims 29-33, Moens discloses thermosetting composition (see Abstract) comprising amorphous polyester with acid number within the range of 15-100 mg KOH (see Claim 1) containing 70-100% mol of Isophthalic Acid 0-30% of at least one other aliphatic acid 70-100 mol% of neopentyl diol and 0-30 mol% of at least one other aliphatic polyol (see Abstract) and hydroxyalkylamide as a crosslinking agent in thermosetting coating composition (see Claim 17).

Moens teaches that polyester has M_n values, determined by GPC, within the range of 1100-15500, where T_g is 40-80°C and melt viscosity is 5-15000 Mpa* s (see Claims 1, 10, 12, 13)

Art Unit: 1796

Moens discloses fumaric, maleic, terephthalic acid, 1,4 butanediol and trimethylolpropane (see Column 6, line 5 and line 20).

Moens discloses amorphous polyester containing 70-100% mol of Isophthalic Acid, 0-30% of at least one other aliphatic acid 70-100 mol% of neopentyl diol and 0-30mol% of at least one other aliphatic polyol (Abstract).

Moens discloses thermosetting composition, having 4-50% wt of crosslinking agent hydroxyalkylamide (see Claims 17 and 19), 55- 95%wt of the above amorphous polyester (see Claim 1), light adsorbers, pigments, etc.

Regarding claim 34, Moens teaches pigments and flow control agents (see Column 9, line 10).

In reference to claims 39-41, Moens teaches coating process, where substrate is a metal, comprising application of thermosetting powder by electrostatic or gun deposition with following heating at temperature of 150-220C.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 29-41 and new claim 42 rejected under 35 U.S.C. 103(a) as being unpatentable over Kaplan et al (US 5889126) herein Kaplan ((cited in the previous Office Action) in view of Moens.

Regarding claims 29-33, Kaplan discloses powdered thermosetting compositions which comprise:

A powdered thermosetting composition comprising:

a) a carboxylic acid group containing amorphous polyester having an acid number of from 10 to 400 mg KOH/g (see Abstract) and Mn within the range of 300-15000 (see Claim 2) prepared from:

(a) a polyacid constituent comprising:

(i) at least 50 mol, preferably 80 mol of isophthalic acid (IPA) (see Column 2, line 55); and

(ii) the balance of another aliphatic, cycloaliphatic or aromatic polyacid, including cyclohexanedicarboxylic acid (see Column 2, line 65);

and

(b) a polyol constituent comprising:

(i) one or more of a linear chain aliphatic C4-16 diol (see Column 3, line 10);

(ii) at least 50% mol of neopentyl glycol (NPG) (see Column 3, line 20);

(iii) another linear chain aliphatic and/or cycloaliphatic diol, including 1,4 butanediol, ethylene glycol trimethylolpropane (see Column 3, line 15).;

Art Unit: 1796

and

(iv) small amount of a polyol with 3 or more hydroxyl groups (see Column 3, line 20); and

J3) a cross-linking agent having at least two hydroxyalkylamide groups (see Abstract); where powdered thermosetting composition contains no semi-crystalline polyester.

Regarding Claims 34, 40 and 41, Kaplan teaches flow control agent (see Column 5, line 30), film application apparatus, coating temperature of 200C and aluminium plate substrate (see Column 8, line 65).

In addition, note that components of claims 30, 32,33 and 37 are optional.

Note that Kaplan does not teach ICI (cone/plate) viscosity values at 200C. However, since the above value primarily depends on Molecular Weight, Kaplan's composition meets the viscosity values of Claim 35.

Kaplan does not disclose exact composition of amorphous polyester as claimed in Claim 20. Consequently, since T_g is a function of the composition structure, Kaplan does not teach T_g values within the claimed range.

However, Kaplan's disclosure does not preclude the composition of Claim 29 of the Application examined, since the reference discloses all the claimed components.

According to MPEP 2123, disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments (see also *In re Susi*, 440 F.2d 442, 169 USPQ 423 (CCPA 1971), *In re Gurley*, 27 F.3d 551, 554, 31 USPQ2d 1130, 1132 (Fed. Cir. 1994) , *In re Fulton*, 391 F.3d 1195, 1201, 73 USPQ2d 1141, 1146 (Fed. Cir. 2004).

Regarding newly added claim 42, Kaplan teaches both individual amorphous polyester and its mixture with semi-crystalline polymer (see Abstract).

In addition, Moens teaches powdered thermosetting composition, having the same structure as claimed in Claim 20 of the Application.

Moens discloses thermosetting composition (see Abstract) comprising amorphous polyester with acid number within the range of 15-100 mg KOH (see Claim 1) containing 70-100% mol of Isophthalic Acid 0-30% of at least one other aliphatic acid, 70-100 mol% of neopentyl diol and 0-30mol% of at least one other aliphatic polyol (see Abstract).

Art Unit: 1796

Moens teaches that polyester has Mn values, determined by GPC within the range of 1100-15500, Tg is 40-80C and melt viscosity 5-15000 Mpa* s (see Claims 1, 10, 12, 13) and hydroxyalkylamide as a crosslinking agent in thermosetting coating composition (see Claim 17).

Moens discloses fumaric, maleic acids and terephthalic acid and 1,4 butanediol, trimethylolpropane (see Column 6, line 5 and line 20).

Moens discloses thermosetting composition, having 4-50% wt of crosslinking agent hydroxyalkylamide (see Claims 17 and 19), 55- 95%wt of the above amorphous polyester (see Claim 1), light adsorbers, pigments, etc.

Moens discloses a process for coating an article, comprising the steps of:

I) applying to the article by an electrostatic or friction charging gun (see Examples 15-16) on aluminum substrate.

the composition according to claim 20 to form a coating on the article, and II) heating said coating at a temperature of 200°C.

Moens teaches that his composition has a very good mechanical properties and excellent weatherability.

Art Unit: 1796

Therefore, it would have been obvious to a person of ordinary skills in the art to use Moens 's amorphous polymer in Kaplan's applications in order to achieve good mechanical properties and excellent weatherability.

Response to Arguments

Applicant's arguments filed 9/17/2009 have been fully considered but they are not persuasive.

Applicant argues that Moens does not anticipate the instant claims because it does not disclose the range of polyols recited by the claimed invention with sufficient specificity.

Examiner disagrees. Moens discloses thermosetting composition (see Abstract) comprising amorphous polyester with acid number within the range of 15-100 mg KOH (vs 12-34 mg of claimed range) containing 70-100% mol of Isophthalic Acid (vs 81-100% of claimed range), 0-30% of at least one other aliphatic acid 70-100 mol% of neopentyl diol (vs 35-85% of claimed range) and 0-30 mol% of at least one other aliphatic polyol (vs 15-65% of claimed range) and hydroxyalkylamide as a crosslinking agent in thermosetting coating composition (see Claim 17). Besides, Moens teaches the Tg values of the claimed range (40-80C), which is possible only when the compositions in both cases are substantially identical.

Art Unit: 1796

Applicant submits that the combination of Kaplan in view of Moens is improper and insufficient to establish a prima facie case of obviousness.

Examiner disagrees. Both Kaplan and Moens teach a combination of semicrystalline and amorphous polyesters used for coating and based on the substantially the same ingredients.

Applicant argues that Kaplan provides laundry list of possible combinations of the monomers.

However, a genus does not always anticipate a claim to a species within the genus.

However, when the species is clearly named, the species claim is anticipated no matter how many other species are additionally named. *Ex parte A*, 17 USPQ2d 1716 (Bd. Pat. App. & Inter. 1990) See also MPEP 2131.02.

Applicant argues that Only Example 3 of Kaplan relates to a carboxy-functional amorphous polyester. However, this example teaches a terephthalic acid-rich polyester. Examiner disagrees. Kaplan openly teaches that tere- and –isophthalic acids can be used interchangeably.

Applicants additionally contend that the combination of Kaplan and Moens is improper on its face because Moens, viewed as a whole, requires a polyester composition having both a semi-crystalline polyester and an amorphous polyester.

However, primary reference (Kaplan) discloses that amorphous polyester can be applied alone or in combination with semicrystalline one (see Abstract).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GREGORY LISTVOYB whose telephone number is (571)272-6105. The examiner can normally be reached on 10am-7pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1796

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James J. Seidleck/
Supervisory Patent Examiner, Art Unit 1796

GL

Application/Control Number: 10/544,116
Art Unit: 1796

Page 12